

I. Amendments to the Claims

This listing of claims shall replace all prior versions, and listings, of the claims in the application.

Listing of Claims

1-23. (canceled)

24. (currently amended) A method for making a polypeptide in a cell, said method comprising:

- (a) transfecting said cell with a nucleic acid sequence encoding said polypeptide, wherein the nucleic acid sequence encoding said polypeptide is mutated to replace mRNA interferase recognition sequences with an alternate triplet codon, wherein amino acid sequences of said polypeptide encoded by said mutated nucleic acid sequence are not altered by said mutating;
- (b) transfecting said cell with a nucleic acid sequence encoding an mRNA interferase, wherein said mRNA interferase recognizes said mRNA interferase recognition sequences; and
- (c) expressing the nucleic acid sequences of step (a) and (b) in said cell, wherein expressing the nucleic acid sequences of step (a) and (b) in said cell produces the polypeptide in said cell,

wherein the mRNA recognition sequence is an Adenine-Cytosine-Adenine (ACA) sequence and the mRNA interferase is MazF comprising SEQ ID NO: 2.

25-26. (cancelled)

27. (currently amended) The method of claim 24 25, wherein expression of a nucleic acid of step (b) reduces or inhibits synthesis of cellular polypeptides encoded by nucleic acid sequences comprising ACA sequences.

28. (currently amended) The method of claim 36 26, wherein expression of a nucleic acid of step (b) reduces or inhibits synthesis of cellular polypeptides encoded by nucleic acid sequences comprising UAX sequences.

29. (original) The method of claim 24, wherein step (a) and step (b) are performed simultaneously.

30. (original) The method of claim 24, further comprising incubating said cell prior to or during step (c) in media comprising at least one radioactively labeled isotope.

31. (currently amended) A method for making a polypeptide, said method comprising:

(a) providing a nucleic acid sequence encoding said polypeptide, wherein the nucleic acid sequence encoding said polypeptide is mutated to replace mRNA interferase recognition sequences with an alternate triplet codon, wherein amino acid sequences of said polypeptide encoded by said mutated nucleic acid sequence are not altered by said mutating;

(b) providing a nucleic acid sequence encoding an mRNA interferase, wherein said mRNA interferase recognizes said mRNA interferase recognition sequences; and

(c) expressing the nucleic acid sequences of step (a) and (b), wherein expressing the nucleic acid sequences of step (a) and (b) produces the polypeptide,

wherein the mRNA recognition sequence is an ACA sequence and the mRNA interferase is MazF comprising SEQ ID NO: 2; or wherein the mRNA recognition sequence is a UAX sequence, wherein X is a C, A, or U, and the mRNA interferase is PemK comprising SEQ ID NO: 4.

32-35. (canceled)

36. (new) A method for making a polypeptide in a cell, said method comprising:

- (a) transfecting said cell with a nucleic acid sequence encoding said polypeptide, wherein the nucleic acid sequence encoding said polypeptide is mutated to replace mRNA interferase recognition sequences with an alternate triplet codon, wherein amino acid sequences of said polypeptide encoded by said mutated nucleic acid sequence are not altered by said mutating;
- (b) transfecting said cell with a nucleic acid sequence encoding an mRNA interferase, wherein said mRNA interferase recognizes said mRNA interferase recognition sequences; and
- (c) expressing the nucleic acid sequences of step (a) and (b) in said cell, wherein expressing the nucleic acid sequences of step (a) and (b) in said cell produces the polypeptide in said cell,

wherein the mRNA recognition sequence is a Uracil-Adenine-X (UAX) sequence, wherein X is a Cytosine (C), A, or U, and the mRNA interferase is PemK comprising SEQ ID NO: 4.

37. (new) The method of claim 36, wherein step (a) and step (b) are performed simultaneously.

38. (new) The method of claim 36, further comprising incubating said cell prior to or during step (c) in media comprising at least one radioactively labeled isotope.